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ZOOLOGY.

Pteropodus Dallii sp. nov. Type:—One specimen 200 mm. long, San Francisco. Head 3, depth 3. D, XIII, $14\frac{1}{2}$; A, III, $6\frac{1}{2}$.

Dorsal spines moderate, two in head; lower jaw projecting. Three straight, dark crossbands, one from nape across base of pectoral, one from between 6th and 7th dorsal spine toward anus, a half one from 8th to 10th dorsal spine to lateral line, a broader one below soft dorsal. These bars extending onto the dorsal fin. A few small dark spots on base of pectorals and on shoulder; sides of tail more or less mottled. Dark streaks radiating from eye. Maxillary extending beyond eye, about $2\frac{1}{5}$ in head. Eye equals snout, $3\frac{6}{7}$ in head, considerably more than inter-orbital width. Inter-orbital concave, two strong ridges dividing it into a median and two lateral grooves. Pre-orbital narrow, with two flat spine processes. Preopercular spines directed backward. Gill-rakers, about two in orbit. Second anal spine $2\frac{1}{3}$ in head. Maxillary, mandibles and snout naked. Scales mostly cycloid. Peritoneum pale. Lower pectoral rays thick and fleshy.

The single specimen belongs to the collections of the Indiana University. We have taken the liberty to name this species for William Healy Dall of the Smithsonian Institution, who has been intimately identified with west coast zoology for many years.

C. H. Eigenmann & C. H. Beeson.

Changes of Plumage in the Bobolink.—Mr. F. W. Chapman shows in the *Auk,* Nov., 1893, a colored plate illustrating the change of plumage in *Dolichonyx oryzivorus.* According to the author the male bobolink in the course of one year passes through the following phases of plumage. Late in July, when the breeding season is over, the black male undergoes a complete molt and appears in the yellowish plumage of the reed-bird, which closely resembles the plumage of the breeding female. In this costume the birds migrate southward, pausing in the rice fields of our southern states, and apparently continuing their journey to the Campo districts of Brazil. A specimen taken at Corumba, Matto Grosso, Brazil, shows that in the spring, as well as after the breeding season, a complete molt takes place, and the male appears in a suit of black feathers tipped with yellow. As the birds travel southward the yellow tips slowly drop off, the nape, scapula and rump fade, and the bill and feet change respectively from flesh color to blue black and brownish-black. This is shown in a finely graduated series of intermediates in the American Museum of New York. Birds taken during the summer represent the extreme of faded and abraded plumage.

On Three New Genera of Characinidæ.—The following genera were found by Mr. H. H. Smith in the upper waters of the Jacuhy River in the Brazilian State of Rio Grande do Sul.

ASIPHONICHTHYS. This is Anacyrtus with imperfect lateral line, a few anterior scales only displaying it. The only species is *A. stenopterus* sp. nov., which has the following characters. Scales large, l. l. 42; l. tr. 20. Radii; D 11; A 46; V 9; P 15. Depth 2.66 in length less caudal fin; head in do 3.8. times. Eye 3, equal interorbital space. An obscure postclavicular spot; no basal caudal spot.

CHORIMYCTERUS. This is Characidium with two series of teeth in the lower jaw; the external series, like the premaxillaries, tricuspidate; the posterior series simple. Lateral line complete. *C. tenuis* sp. nov. Scales large, 3—39—2. Radii; D 11; A 9; V 9; P 12. Depth one seventh; head one fifth; eye one third. Silvery, scales with shaded edges.

DIAPOMA. Teeth as in Tetragonopterus. Operculum excavated above and with sub-operculum produced below lateral line and above pectoral fin to an obtuse apex. No gill-rakers on principal limb of first gill arch. Dorsal fin entirely posterior to ventrals. Belly not acute; an adipose fin. Lateral line interrupted. *D. speculiferum* sp. nov. Scales large; 4—37—5. Radii; D. I 9; A. II 29; V 7; P 11. Depth 3.25; head 3.6; eye 3, equal interorbital width. Border of anal concave. Reflection of metallic mercury, especially on the operculum. No spots.—E. D. COPE.

Descriptions of Three New Rodents from California and Oregon.

1. NEOTOMA MONOCHROURA. Sp. nov.

(Type, No. 1739, Ad. ♂, Col. Academy Natural Sciences, Phila., Grant's Pass, Josephine Co., Oregon; col. by Geo. Kenzer.)

Description.—Size large, tail long, unicolor, exceeding length of head and body. Above, dark brownish gray, darkest medially, brownest on sides from nose to root of tail; tail uniform blackish brown, thickly and equally clothed above and below with rather short coarse hairs; color of tail never (?) appreciably lighter below than above as often seen in *N. fuscipes;* chin, throat, inside of fore-legs to toes, inside of hams, belly, vent and feet uniform yellowish white to the bases of hairs; line of demarcation between colors of upper and lower parts well defined; hinder soles, heel and lower outer part of hind leg dusky; ears large, minutely and scantily haired on both sides; whiskers black and nearly twice as long as head.

Measurements (from well stuffed skin).—Total length 460; tail vertebra 216; hind foot 43; ear, from crown 25. Skull, (occipital and pterygoid region missing).—Length from tip of nasals to posterior end of interparietal 50; base of incisor to post-palatal notch 24; greatest anterior width of pterygoid fossa 2.5; distance from post-palatal notch to posterior notch of incisive foramina 10.4; alveolar length of upper molar series 9; greatest zygomatic breadth 27.5; interorbital constriction 6; length of nasals 20; length of mandible, (condyle to anterior point of ramus), 30; width of mandible, (tip of coronoid process to angle), 15.6.

The closest ally of *monochroura* is *fuscipes*, from which it is distinguished by its larger size, pure yellowish white feet and underparts, its longer unicolor tail and dark brown upper parts.

Its cranial differences from *fuscipes* are well marked for the genus They consist in the greater size, greater relative breadth, flat, less convex contour of cranium viewed laterally, greater relative width of molars and the relative narrowness of the pterygoid fossa.

In *monochroura* the ratio of inter-parietal length to breadth is as six to fourteen, in *fuscipes* it is as six to ten; in the former the length of the palatal region from post-palatal notch to incisive foramina is 11 mm., in the latter it averages about 8 mm. In *fuscipes* the post-palatal notch reaches beyond the middle of the last upper molar and the incisive foramina reach back opposite crowns of first upper molars; in *monochroura* the post-palatal notch is opposite the posterior cusp of last molar and the incisive foramina do not reach to the ante-basal line of the upper premolars by 1·5 mm.

The chief differences of dentition may be seen in the upper molar. The coronoid process of *fuscipes* is flattened horizontally above and directed backward, in *monochroura* it is more erect and rounded.

Three specimens of this rat were taken by Mr. Kenzer, who says they often build a very large and conspicuous nest in the sparsely wooded foothills of the Rogue River and Siskyou Mountains. When driven from these nests they betake themselves to the nearest trees with the agility of a squirrel. *N. cinerea occidentalis* was not found in the same region.

2. NEOTOMA INTERMEDIA. Sp. nov.

(Type, No. 1343 ad. ♂ Col. S. N. Rhoads, Dulzura, San Diego Co., Cal., Aug. 21, 1893, Col. by C. H. Marsh).

Description.—Size small, tail slender, short and distinctly bicolor, ears large. Upper parts light brownish-gray lined with black, not darker medially; chin, middle of breast, vent, inside of hind legs, lower two thirds of tail, pes and manus white; rest of under parts, soiled grayish buff, brownest across middle and on sides; bases of hairs darkest; upper third of tail sooty blackish; soles naked, sparsely haired at heel.

Measurements.—Total length 318; tail vertebræ 160; hind foot 35; ear from crown 28; (average measure of 4 adults, length 310; tail 155; foot 34; ear 28). Skull.—Basilar length 33; total length 42; greatest breadth 22; interorbital constriction 5.5; length of nasals 16; interparietal breadth 11.5; length 5.9; length of upper molar series (crown surface), 8; pterygoid fossa to incisive foramina 7.8; length of mandible to upper base of incisor 23.8; height of coronoid process from angle 13.5.

This small, bicolor-tailed Wood Rat from southern California has generally been confounded with *N. mexicana,* but is a different animal, being smaller and larger eared. Its cranial differences are decided. Compared with *mexicana* these are, greater relative size of interparietal, bulging of supraoccipital posteriorly beyond the plane of the occipital condyles, and in the extension of the nasal postero-superior processes of the intermaxillary beyond the base of nasals.

In Dr. Merriam's figure[1] and in Baird's description, these processes terminate opposite the base of nasals, barely reaching the anterior plane of the orbits.

The mandible of *intermedius* is much slenderer and the condyle more prolonged posteriorly, the tip of the latter reaching front of the articular surface of the former.

Seven specimens of this species are in the collection, and I am indebted to Mr. G. S. Miller, Jr., for the loan of others. Mr. Oldfield Thomas described[2] a rat, *N. macrotis,* from San Diego, which, so far as the description goes, must be superficially very like *intermedius,* but it is much larger than any in my series, two of which come from the same locality. The skull measurements of *macrotis* are so applicable to those of *fuscipes* as contrasted with those of *intermedius,* and the colors of the feet and tail in *fuscipes* sufficiently variable to make it possible that *macrotis* is a specimen of *fuscipes* with faintly clouded feet and bicolor tail. These considerations induce me to run the risk of imposing a synonym. Two specimens, one from Banning, another from San Bernardino, Cal., seem to represent a pallid race of *intermedius,* differing from the Dulzura Mountain form in the ashy cast of upper parts and the absence of fulvous on the sides and belly, the hairs of chin, breast and ventral region being white to their bases. The skulls of these light colored specimens show their specific identity with *intermedius.* In the involved state of the case as it now stands, I would refer to this race provisionally as *Neotoma intermedia gilva.*

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[1] N. Am. Fauna, No. 3, Pl. X. *N. pinetorum,* Proc. Biol. Soc. Wash., 1893, p. 111.

[2] Am. Mag. N. Hist., Sept. 1893, 234.

DIPODOMYS PARVUS. Sp. nov.

(Type, No. 1213 ad. ♀, Col. S. N. Rhoads, San Bernardino, California, June 12, 1892, Col. by R. B. Herron).

Description.—Similar to *D. merriami,* but smaller-bodied, longer-tailed and lacking the black on sides of nose and face. Above, buffy gray, becoming purer buff on sides. Spot at base of ear, fringe over eye, sides of nose, (except base of whiskers), forepart of cheeks, forelegs, inside of hind legs, feet, sides of tail, stripe across thighs and under parts white, strongly defined laterally against color of upper parts. Upper and lower fourth of crested penicillate tail, brownish-black, pencil sooty brown; plantar surface of hind feet brownish; narrow ring around eyes, black.

Measurements.—Total length 248; tail vertebræ 154; hind foot 35; ear (from skin) 10; pencil 25. Skull.—Basilar length 21; mastoid breadth 22.5; interorbital constriction 13; length of nasals 13; crown length of upper molar series 3.6; width of foramen magnum 5; tip of nasals to interparietal 28.4, to extremity of ante-orbital process of maxillary 18.9; greatest ante-orbital width (molar) 20; length of mandible 13.9; height of coronoid process from angle 5.1.

Six specimens represent this species in my collection; three are adult; all were taken in the San Bernardino Valley. The average measurements of adults are somewhat less than those given above. The type is more fulvous than any of the series. Spring specimens are grayer (less fulvous) than type and the tail brush is sooty.

No skull characters or measurements being given for *merriami* by Dr. Mearns, it is impossible to make cranial comparisons with that species.

Compared with *D. similis*[3] and *D. simiolus*[3], *D. parvus* is readily distinguished by its darker, grayer colors. Its skull differs from either of the former in its shortness, greater relative width and size of brain case.

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[3] Proc. Acad. N. Sci., Phila., Nov., 1893.

In *parvus* the ratio of mastoid breadth to greatest ante-orbital jugal breadth is 88.8, in *simiolus* it is 82.6, in *similis* it is 86.8.

Of the two, *parvus* much more nearly resembles *similis* than *simiolus* in cranial characters and it is possible that a fuller series will show *parvus* to be merely a small, dark subspecies of *similis*.

SAMUEL N. RHOADS.

Zoological News, Vermes.—In a recent paper on the *Ocnerodrilus*, Mr. Gustav Eisen gives a detailed description of the anatomical structure of the 10 known species of this genus. All are tropical or semi-tropical in their habitat, and appear to be restricted to the American Continent. According to the author, the systematic position of this genus is a most interesting one, as showing the affinities with both the water and with the land Oligochœta, and bear a close relationship to Beddard's new genus *Gordiodrilus*.

The paper includes a diagnosis and a synoptic arrangements of the species. (Proceeds. Cal. Acad. Sci., Vol. III).

Mollusca.—A list of the land and marine shells of the Galapagos Islands, compiled by Mr. R. E. C. Stearns, has been published in the Proceeds. U. S. Nat. Mus., Vol. XVI. The list is based on the collection made during the voyage of the Albatross in 1887–88, supplemented by examples contained in the U. S. Nat. Mus. and in other collections from authentic sources. The total number of species is 288, varieties 30, making in all 318, which are segregated as follows. Marine Lamellibranchs 61; Scaphopods 1; Gastropods, marine species 205, with 13 varieties; Gastropods, land species 31, with 17 varieties.

Pisces.—A new shark, *Centrina bruniensis*, from the Tasmanian Coast, and a new species of pelagic fish *Centrolophus maoricus*, from New Zealand, are described by Mr. J. D. Ogilby in the Records of the Australian Museum, Sept., 1893. The latter, according to the author. is quite as interesting a discovery as that of Tetragonurus some years ago at Lord Howe Island, and bears a close analogy to it, both genera being Mediterranean types.

A new Cyprinoid fish, *Couesius greenii* from the headwaters of Frazer River, B. C., is described by Dr. D. S. Jordan. The species is related to *Couesius plumbeus* of the upper Missouri and Lake Superior region, from which species it differs in the larger size of the scales and in some details of form. The head is especially large and heavy. (Proceeds. Nat. Mus., Vol. XVI).

Reptilia.—Mr. Edgar R. Waite has commenced an investigation of the Australian Typhlopidæ. In his first paper upon the subject he describes a new species *T. proximus,* notes thas *T. curtus* Ogilby must be referred to *T. ligatus* Peters, and decides that *T. ruppelli,* which is generally considered identical with *T. vigrescens* Gray, has a distinct specific rank. (Records Austr. Mus., Vol. II, No. 5, 1893).

Mammalia.—An experiment recently conducted by a captain of a vessel, assisted by a naturalist who happened to be on board, shows the traction power of a whale 23 meters long, and weighing about 70 tons, to be close to 145 horse power. However under the conditions in which the experiment was performed it is more than probable that the animal did not exert its full strength. The whale might become of use to the man as a working factor, but it can never be depended upon as is the elephant for example.

Among the mammals recently collected by Dr. W. L. Abbott, in the islands north of Madagascar, are two specimens of an interesting new species of *Pteropus* from Aldabra Island. They are described by Mr. F. W. True in the Proceeds. Nat. Mus., Vol. XVI, under the name *Pteropus aldabrensis.*

New Mammals.—In the fifth volume of the Bulletin of American Mus. Nat. Hist. are from papers dealing with new or little known mammals. Mr. J. A. Allen describes *Didelphys (Micoureus) canescens* from Tehuantepec, *Oryzomys costaricineis* from Costa Rica. Mr. Frank M. Chapman describes *Oryzomys palustris natator* from North Carolina and Florida. In a paper by both gentlemen an account is given of a collection of mammals from Trinidad. 65 species are enumerated as constituting the fauna of the island, of which the following are new:—*Chœronycteris intermedia, Nectomys planipes, Tylomys couesii, Oryzomys speciosus, O. trinitatis, O. velutinus, O. brevicauda, Loncheres castaneus* and *Echimys trinitatis.*